The Earth Beneath Your Feet - What's Going On Down There?

2011 BEDROCK GEOLOGIC MAP OF VERMONT

WHAT IS A ROCK? A rock is simply an aggregate of one or more minerals. So, what is a mineral? "A mineral is an element or chemical compound that is normally crystalline and that has been formed as a result of geological processes." (Nickel, 1995). The ages of the bedrock in Vermont range from Mesoproterozoic (1.4 billion years) to Miocene (20 million years).

Folds in rock

Large garnets in schist

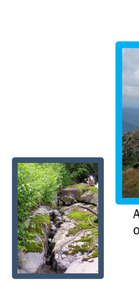
WHAT DOES THE MAP SHOW? The map shows the type of solid, intact rock at or near the surface. The map includes rock descriptions, age relationships shown on a correlation chart, and features such as folds and faults. Cross-sections show the geologist's interpretation of the rock at depth.

Much of Vermont's bedrock is covered by surficial materials and glacial deposits (sand, clay, till, boulders, etc), so geologists must develop a map pattern based on data collected where rock is exposed.

Everything and everyone is made from something !

WHAT ARE THE DIFFERENT COLORS? Each color represents a different rock type. There are 486 different rock types shown on the map. The first bedrock map of Vermont, published in 1861, had only 24 different rock types mapped.
The 1961 Centennial Geologic Map of Vermont had 137 mapped rock types. Since maps are done at different map scales, larger maps like the 2011 map, can show a lot of detail and have many more colors and patterns.

We're All Connected to Bedrock



Water in Fracturable Bedrock

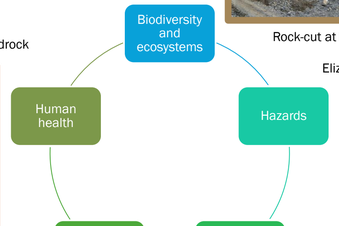
Alpine Community on Camels Hump

Rockfalls in Smugglers Notch

Rock-cut at Bennington Bypass

Drilling a Water Well

Elizabeth Copper Mine Reclamation



Sampling Water for Arsenic

Bridge at Enosburg Falls

Root Cellar

Contact the Vermont Geological Survey at 802.522.5210
or visit our web site at http://www.anr.state.vt.us/dec/geo/vgs.htm
for maps and more information.
Please visit the map exhibit at the Perkins Museum in the Geology Department, Delehanty Hall, University of Vermont, Burlington, VT.

2011 Bedrock Geologic Map of Vermont (Ratcliffe and others) is printed on 2 sheets plus a description of map units. Each sheet is 76" wide and 54" tall.

VERMONT
AGENCY OF NATURAL RESOURCES
Vermont Geological Survey

Poster: M. Gale, 2013
Photographs: T. Eliassen, M. Gale, J. Kim, P. Thompson
Reference: Ratcliffe, N.M. et al., 2011, Bedrock Geologic Map of Vermont: USGS SIR 3184, 3 sheets, scale 1:100,000.